

Appln. No. : 10/035,389
Filed : December 28, 2001

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended): A method for treating an intravascular occlusion, comprising the step of delivering fluid containing an occlusion-treating drug into a blood vessel from a location proximal to an intravascular occlusive device such that at least a portion of the drug contacts an said intravascular occlusive device.

2 (original): The method of Claim 1, wherein said occlusive device is a balloon.

3 (original): The method of Claim 1, wherein said drug is a thrombolytic agent.

4 (original): The method of Claim 1, wherein said drug is an anticoagulant.

5 (original): The method of Claim 1, wherein said drug is a radioisotope.

6 (original): The method of Claim 1, wherein said drug is delivered at a flow rate of between about 0.1 and 10 cc/second.

7 (original): The method of Claim 6, wherein said drug is delivered at a flow rate of between about 0.5 and 2 cc/second.

8 (original): The method of Claim 7, wherein said drug is delivered at a flow rate of between about 0.5 and 1 cc/second.

9 (original): A method for treating an intravascular occlusion, comprising:

delivering an occlusive device into a blood vessel to a site near said occlusion;

delivering a catheter having a proximal end and distal end to the site of said occlusion such that the distal end of said catheter is proximal to the occlusive device;

actuating said occlusive device at a location distal to said occlusion to at least partially occlude blood flow through said vessel; and

delivering a drug-containing fluid from the distal end of said catheter such that at least a portion of the drug-containing fluid contacts said occlusive device.

10 (original): The method of Claim 9, whereby said drug travels in a distal to proximal direction after contacting said occlusive device.

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11 (original): The method of Claim 9, wherein said occlusive device is a balloon.

12 (original): The method of Claim 9, wherein said drug is a thrombolytic agent.

13 (original): The method of Claim 9, wherein said drug is an anticoagulant.

14 (original): The method of Claim 9, wherein said drug is a radioisotope.

15 (original): The method of Claim 9, wherein said drug is delivered at a flow rate of between about 0.1 and 10 cc/second.

16 (original): The method of Claim 15, wherein said drug is delivered at a flow rate of between about 0.5 and 2 cc/second.

17 (original): The method of Claim 16, wherein said drug is delivered at a flow rate of between about 0.5 and 1 cc/second.

18 (original): The method of Claim 9, wherein said catheter is an aspiration catheter.

19 (original): The method of Claim 18, further comprising aspirating particles broken off from the occlusion during delivery of the guidewire past the occlusion through said aspiration catheter.

20 (original): The method of Claim 9, wherein the tip of said catheter is placed between about 0.5 and 10 mm from the surface of said occlusive device.

21 (original): The method of Claim 20, wherein the tip of said catheter is placed between about 1 and 5 mm from the surface of said occlusive device.

22 (original): The method of Claim 9, further comprising aspirating particles broken off from said occlusion through said catheter after delivering the drug-containing fluid.

23 (original): The method of Claim 9, wherein the occlusive device is provided on a distal end of a guidewire.

24 (original): The method of Claim 23, wherein the catheter is delivered over the guidewire.

25 (original): The method of Claim 23, wherein the catheter is delivered before delivering the guidewire.

26 (original): A method of treating an intravascular occlusion in a blood vessel, comprising:

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delivering a guidewire having an occlusive device to the site of the occlusion such that the occlusive device is distal to the occlusion;

delivering a catheter having a proximal end and a distal end and a lumen extending therethrough to the site of the occlusion such that the distal end of the catheter is proximal to the occlusive device;

actuating the occlusive device to at least partially obstruct blood flow through the blood vessel;

delivering a treatment fluid through the lumen of the catheter such that the fluid flows in a proximal to distal direction out of the distal end of the catheter, and then flows in a distal to proximal direction after contacting the occlusive device; and

aspirating particles generated by the action of the treatment fluid on the occlusion through the lumen of the catheter at the distal end.

27 (original): The method of Claim 26, further comprising the steps of removing said catheter, performing further treatment and aspirating particles generated by the further treatment.

28 (original): The method of Claim 26, further comprising the step of aspirating while crossing the occlusion with the guidewire.

29 (original): The method of Claim 26, wherein a guidewire lacking an occlusive device is delivered to create space, then exchanged for the guidewire having an occlusive device.

30 (original): The method of Claim 26, wherein said guidewire has holes at its proximal end.

31 (original): The method of Claim 26, wherein said occlusive device is a balloon.

32 (original): The method of Claim 26, wherein said catheter rides over said guidewire.

33 (original): The method of Claim 26, wherein said catheter and said guidewire are delivered simultaneously.

34 (original): The method of Claim 26, wherein said guidewire is delivered first.

35 (original): The method of Claim 26, wherein said catheter is delivered first.

36 (original): A method for crossing an intravascular occlusion in a blood vessel, the method comprising:

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delivering a hollow wire in a proximal to distal direction past the occlusion; and
delivering fluids through a lumen in said hollow wire to dissolve said occlusion
while crossing of the occlusion with the hollow wire.

37 (original): The method of Claim 36, wherein the fluids are delivered through side
ports in the hollow wire.

38 (original): The method of Claim 36, wherein the fluids are delivered through an
irrigation hole at the distal end of the hollow wire.

39 (original): The method of Claim 36, wherein the hollow wire includes an occlusive
device at its distal end.

40 (currently amended): The method of Claim ~~36~~ 39, wherein the occlusive device is an
inflatable balloon.

41 (currently amended): The method of Claim ~~36~~ 40, wherein the inflatable balloon is
~~inflated~~ inflatable through the lumen using said fluids.

B3 42 (original): A method for treating an intravascular occlusion, comprising:

delivering a catheter having a proximal end and a distal end and a lumen
extending therethrough into a blood vessel to a site near said occlusion, the catheter
having an occlusive device on the distal end;

actuating said occlusive device at a location distal to said occlusion to at least
partially occlude blood flow through said vessel; and

delivering a drug-containing fluid injected through the lumen of said catheter
across said occlusion in a distal to proximal direction.

43 (original): The method of Claim 42, wherein the drug-containing fluid is delivered
through a plurality of holes in the catheter proximal to the occlusive device.

44 (original): The method of Claim 42, wherein the occlusive device is a balloon.

45 (original): The method of Claim 44, wherein the drug-containing fluid is delivered
through a plurality of holes in a proximal face of the balloon.

46 (original): The method of Claim 45, wherein the drug-containing fluid delivered
through the lumen is used to inflate the balloon.

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B3 47 (original): The method of Claim 42, wherein the drug-containing fluid is delivered at
a flow rate of between about 0.1 to 3 cc/second.
